

CLAIMS

What is claimed is:

1. A system comprising:
a content provider communicatively coupled to a plurality of service providers that provide access to a communication network; and
an egress traffic manager operable to determine, based at least in part on traffic volume of each of the plurality of service providers, an optimal balance of the content provider's egress traffic to be routed to each of the plurality of service providers.
2. The system of claim 1 further comprises:
at least one router for routing the content provider's egress traffic to the plurality of service providers.
3. The system of claim 2 wherein said at least one router comprises a border gateway protocol (BGP) router.
4. The system of claim 2 wherein the egress traffic manager is operable to update the at least one router to achieve said optimal balance.
5. The system of claim 4 wherein the egress traffic manager is operable to update a routing table of the at least one router.
6. The system of claim 1 wherein the egress traffic manager comprises:
at least one data collector module operable to collect data reflecting said traffic volume.
7. The system of claim 1 wherein the egress traffic manager comprises:
router interface utilization data collector module operable to collect data reflecting traffic volume for each router interface from the content provider to the plurality of service providers.
8. The system of claim 1 wherein the egress traffic manager comprises:
per prefix utilization data collector module operable to collect data reflecting traffic volume for each prefix to which said egress traffic is destined.

9. The system of claim 1 wherein the egress traffic manager comprises:
decision maker module operable to determine whether to allocate the content provider's egress traffic differently among said plurality of service providers to achieve said optimal balance.

10. The system of claim 1 wherein the egress traffic manager comprises:
router interface utilization data collector module operable to collect interface utilization data reflecting traffic volume for each interface of at least one router that routes the content provider's egress traffic from the content provider to the plurality of service providers;
per prefix utilization data collector module operable to collect per prefix utilization data reflecting traffic volume for each prefix to which the content provider's egress traffic is destined;
decision maker module operable to determine, based at least in part on the collected interface utilization data and the collected per prefix utilization data, whether a routing strategy of the at least one router should be updated to achieve the optimal balance; and
BGP speaker module operable to update the routing strategy of the at least one router if determined by the decision maker module that the routing strategy should be updated.

11. The system of claim 1 wherein the communication network comprises the Internet.

12. A method comprising:
using a plurality of service providers for providing a content provider access to a communication network, wherein the content provider communicates its egress traffic to clients via the plurality of service providers;
collecting traffic volume data for each service provider; and
determining, based at least in part on the collected traffic volume data, whether to change an allocation of egress traffic from the content provider among the plurality of service providers.

13. The method of claim 12 further comprising:
if determined to change the allocation, re-configuring at least one router that routes the egress traffic from the content provider to the service providers such that the egress traffic is allocated among the plurality of service providers in a desired manner.

14. The method of claim 13 wherein said re-configuring comprises:
updating a routing table of said at least one router.

15. The method of claim 12 wherein said collecting traffic volume data comprises: collecting per prefix utilization data.

16. The method of claim 15 wherein said per prefix utilization data comprises data corresponding to the amount of egress traffic for each of the plurality of service providers that is destined for a given prefix.

17. The method of claim 12 wherein the content provider routes its egress traffic to said plurality of service providers via at least one router.

18. The method of claim 17 wherein said collecting traffic volume data comprises: collecting router interface utilization data.

19. The method of claim 18 wherein the router interface utilization data comprises data corresponding to an amount of egress traffic from said content provider directed via each of a plurality of interfaces of said at least one router.

20. The method of claim 19 wherein the plurality of interfaces are to the plurality of service providers.

21. An egress traffic manager comprising:
means for determining, for each interface from a content provider to a plurality of service providers, outbound volume destined for each of a plurality of different Internet Protocol (IP) prefixes; and

means for determining, based at least in part on the outbound volume destined for each IP prefix, whether to reallocate an amount of the outbound traffic from the content provider among the plurality of service providers.

22. The egress traffic manager of claim 21 wherein said interface from the content provider to the plurality of service providers comprises an interface from at least one router to the plurality of service providers.

23. The egress traffic manager 21 further comprising:
means for capturing interface utilization data for each of said interface from the content provider to the plurality of service providers.

24. The egress traffic manager of claim 23 wherein said means for determining further bases its determination of whether to reallocate said amount of outbound traffic on the captured interface utilization data.

25. An egress traffic manager comprising:
at least one data collector module for collecting data reflecting volume of egress traffic routed by at least one router from a content provider to each of a plurality of service providers that provide access to a communication network; and
a decision maker module for determining, based at least in part on the collected data, whether a routing strategy of the at least one router should be updated to change the allocation of the egress traffic among the plurality of service providers.

26. The egress traffic manager of claim 25 wherein the at least one data collector module comprises:
router interface utilization data collector module for collecting interface utilization data reflecting traffic volume for each interface of the at least one router that routes the content provider's egress traffic from the content provider to the plurality of service providers; and
per prefix utilization data collector module operable for collecting per prefix utilization data reflecting traffic volume for each prefix to which the content provider's egress traffic is destined.

27. The egress traffic manager of claim 26 wherein the decision maker module determines, based at least in part on the collected interface utilization data and the collected per prefix utilization data, whether the routing strategy of the at least one router should be updated.

28. The egress traffic manager of claim 26 wherein the at least one router comprises a border gateway protocol (BGP) router, the egress traffic manager further comprising:
a BGP speaker module for updating the routing strategy of the at least one router if determined by the decision maker module that the routing strategy should be updated.

29. A method comprising:

implementing at least one content provider router for routing egress traffic from a content provider, said at least one content provider router having at least one interface to each of a plurality of service providers that provide the content provider access to a communication network, wherein said at least one content provider router includes a routing table from which it determines which of the plurality of service providers to route the content provider's egress traffic;

monitoring the volume of egress traffic directed from the at least one content provider router to each of the plurality of service providers;

determining whether the volume of egress traffic from said at least one content provider router to any one of the plurality of service providers exceeds a corresponding threshold; and

if determined that the volume of egress traffic to one of the plurality of service providers exceeds its corresponding threshold, updating the routing table of said at least content provider router to reallocate the content provider's egress traffic between the plurality of service providers.

30. The method of claim 29 wherein said determining whether the volume of egress traffic from said at least one content provider router to any one of the plurality of service providers exceeds a corresponding threshold comprises:

determining whether traffic volume on an interface from said at least one content provider router to one of the plurality of service providers exceeds said corresponding threshold.